

The yellow-spotted *P. apollo* from the Sierra Nevada, Spain.

By ORAZIO QUERCI.

Some time after the military disaster of Caporetto, Dr. Romei, who had remained longer at the front in the protection of the retreat of the Italian army, returned to Florence and came to pay a visit to my family. Volume VIII. of Oberthür's *Études de Lépidoptérologie comparée* was on my table, and Dr. Romei, while speaking with me about the war, observed the figure of *Parnassius apollo* race *nevadensis*. At that time he knew nothing of entomology, and I related to him that the *nevadensis* was an interesting butterfly, which for many years no collector had been able to get again. Very few, and not perfect, specimens were in the collections, so that none might say surely if the *apollo* from the Sierra Nevada is either yellow or red.

Dr. Romei told me that he would be pleased to solve the question, and I replied: "My boy, when we have won the war you shall go to Sierra Nevada to collect the *apollo*."

Italy won the war but, as a trip to Andalusia is not an easy task, we have been obliged to wait for seven years to carry out our purpose. In February, 1925, Dr. Romei went to Northern Africa with my daughter; the two young people made a nice collection from all over Tripolitania, and returned home in May. My son-in-law had decided to go to Andalusia, at any rate; he left Italy at once because he feared to arrive in Southern Spain too late in the season.

Dr. Romei arrived at Granada on May 15th, and he began to work out the toilsome paths of the Sierra Nevada to discover a spot where one might presume to find the *apollo*. From Granada he went to Guejar Sierra, Jerez, Aldeire, Cadiar, Orgiva, Trevelez; several times he reached 8000ft.-9000ft., as in Puerto del Lobo, Orcajo de Trevelez and at the sources of the Rio Guadix and Rio Trevelez. The season was so cold and damp that my son-in-law was always obliged to carry his mantle and waterproof, because almost every day he was caught by a storm.

During the first month the collecting was discouraging; no more than three or four lepidoptera were seen daily, the rain often prevented Dr. Romei from going into the country. Notwithstanding the adverse conditions my son-in-law would not renounce his enterprise and, at last, on June 27th, 1925, he saw on the wing the first individual of *P. apollo*.

The spot where the *apollo* is living is a desolate land very far from any village; not even a shrub is on the ground, only some poor stems of grass and a few plants of *Sedum* lived amongst the white stones. Dr. Romei although living in a dirty hut on the high mountain was obliged to walk three hours every day to arrive at the spot.

Owing to the cloudy sky and the strong wind, the capture of the *apollo* was an easy matter from June 27th to July 4th; after this time, until July 10th, the sky was cloudless, and it was so hot that my son-in-law, although accustomed to the African "ghibli," was scorched by the sun.

The *apollo* from the Sierra Nevada differs from all the other races of the same species by the colour of the ocelli, which is always yellow-orange; not even one red specimen is in our long series. The males having some yellow spots on the forewings, as in the *pseudonomion*-

like form, are very rare. Some males are like the Oberthür's type, which I have handled at Vernet-les-Bains, when, last July, I paid a visit to Mr. René Oberthür; some other males have the antemarginal row of black crescents much more marked and the white pupils of the ocelli are smaller than in the type form.

I think that the female of this race of *apollo* was till now quite unknown; it is very variable, and in our series of females we have observed many individuals having some yellow spots also on the forewings; the hindwings are still more variable, because the ocelli and anal spots are often largely suffused with yellow-orange colour. On the whole the female sex is very dark.

The region of the Sierra Nevada, where Dr. Romei collected this year from May 15th to July 11th, has a very poor fauna; Dr. Romei remained there to catch because the clever Spanish botanist, Dr. Font Quer, had found there a quite peculiar flora and many botanical novelties. Not only the Rhopalocera but also the Heterocera have been scarce in that country; my son-in-law was collecting every night by lamplight, but the nocturnal captures have not been successful. At any rate we have till now neither set nor studied our Andalusian Lepidoptera, and we cannot say whether, besides the *apollo*, we have in our stock many other interesting things.

Miscellaneous Notes from Argentina. I.

By KENNETH J. HAYWARD, F.E.S.

The object of these notes is to record from time to time any observations that have been made bearing on the insect fauna of South America, especially that part comprising Northern Argentina to the East. The notes are as stated in the title, miscellaneous notes and nothing more. They are simply an attempt to bring together in one place, and without undue delay, notes that would otherwise be scattered, if indeed ever published.

The writer is one whose time and opportunities are limited, but whose work has again taken him into the backwoods of the world, in a place where every insect is a potential new species, and even the commonest are of interest.

Having introduced these notes one cannot now do better than introduce the locality they will cover in the main, the Argentine Chaco. Geographically this area is partly in the northern territory of the Province of Santa Fé and partly the southern portion of the Chaco proper, but to the Argentine all is "El Chaco." There is no natural division and no outstanding natural feature, other than the Rio Parana, that forms the Eastern boundary and separates these provinces from Corrientes. Civilization has scarce penetrated, and the few colonies that have grown up round the tannin factories, and in the few small tracts of agricultural land, are little else than villages. Of these four or five will figure constantly in these notes. Few maps will show them, and it may be of interest to give the reader an idea of their position. Commencing with Villa Ana—the writer's present home—located approximately 28°30' S. Lat. 59°35' West, we have to the north some 35 kilometres a larger town, Villa Guillermina, 30 kilometres to the south-east Tartagal, and about 110 kilometres further south La